

\$1.00

# OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



(Model 638R Shown)

## 18" ROTARY MOWERS

### Model Numbers

**111-604R000  
111-614R000  
121-626R000  
121-628R000  
121-636R000  
121-638R000**

# IMPORTANT

## RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR LAWN MOWER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—**HEED ITS WARNING.**



### DANGER:

Your lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.



### TRAINING

1. Read this owner's guide carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times. Your unit has been designed to perform one job: to mow grass. Do not use it for any other purpose.
3. Never allow children under 14 years old to operate a power mower. Children 14 years old and over should only operate mower under close parental supervision. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower to help prevent blade contact or thrown object injury. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.



### PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like.
2. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
3. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
4. Before working with gasoline, extinguish all cigarettes, cigars, pipes and other sources of ignition. Check the fuel level before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or until engine has been allowed to cool for at least two minutes after running. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
5. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
6. The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.
7. Never attempt to make a wheel or cutting height adjustment while the engine is running.
8. Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run. Mow only in daylight or in good artificial light.

9. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.



### OPERATION

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
3. Stop the blade when crossing gravel drives, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
7. Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
8. Do not run the engine indoors.
9. Never cut grass by pulling mower toward you. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes. Always be sure of your footing. A slip and fall can cause serious personal injury.
10. Never operate mower without proper guards, plates or other safety protective devices in place.
11. Muffler and engine become hot and can cause a burn. Do not touch.
12. Do not operate this mower with the chute door open, unless the complete grass catcher or chute deflector is properly mounted on the mower.



### MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also visually inspect blade for damage (e.g. bent, cracked). Replace with blade which meets original equipment specifications.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the mower with gasoline in the tank or gas containers inside of a building where fumes may reach an open flame or spark (e.g. gas hot water heater). Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves and excessive oil.
5. Check the grass catcher bag frequently for wear or deterioration. Replace a worn or damaged bag immediately. For safety protection, replace only with new bag meeting original equipment specifications.

The use of any accessory on this Rotary Mower other than those manufactured by the mower manufacturer is **not** recommended.



**WARNING: DO NOT operate the mower without the entire grass catcher or chute deflector in place. DO NOT operate the mower without the protective shield on the rear of the deck in place.**

**NOTE:** Under normal usage bag material is subject to wear and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations. For replacement bags, use only factory authorized replacement bag.

**WARNING:** This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 360900, Cleveland, Ohio 44136.

## SET-UP INSTRUCTIONS

**IMPORTANT:** This unit is shipped WITHOUT GASOLINE or OIL. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

**NOTE:** Reference to right or left hand side of the mower is observed from the operating position.

1. Remove the lawn mower from the carton by opening the top flaps and lifting the unit out. Be careful of the staples. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Pull up and back on the handle to raise the handle until it locks into operating position. Tighten the hand knobs which secure the upper and lower handles.
3. Hook the brake cable into the blade control handle from the inside to the outside as shown.

4. With the spark plug wire disconnected and moved away from the spark plug, depress the blade control handle and pull the starter rope out of the engine. Slip the starter rope into the rope guide on the upper handle. Then slip the rope into the rope guide mounted on the right rear side of the mower.
5. To attach the grass catcher, lift the chute door on the back of the mower. Place grass catcher in position. The grass catcher must rest firmly on the lower handle of the mower. Release the chute door. Make certain the magnets on the grass catcher bag secure the chute door firmly.

To remove the grass catcher, raise the chute door and lift the grass catcher up. Release the chute door.

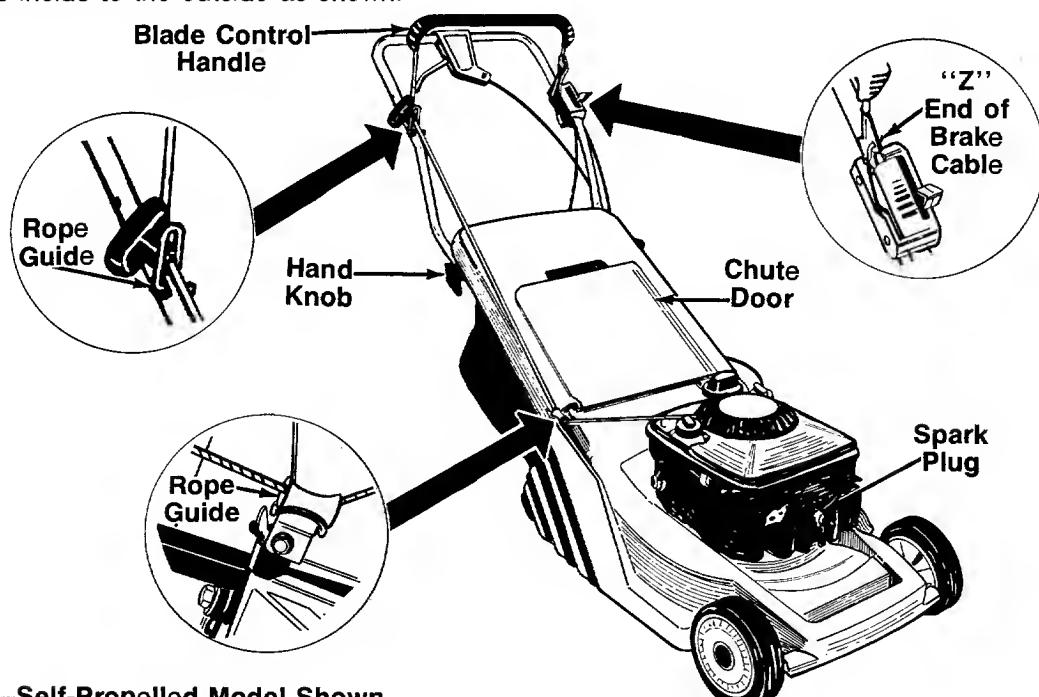


FIGURE 1.—Self-Propelled Model Shown

## CONTROLS

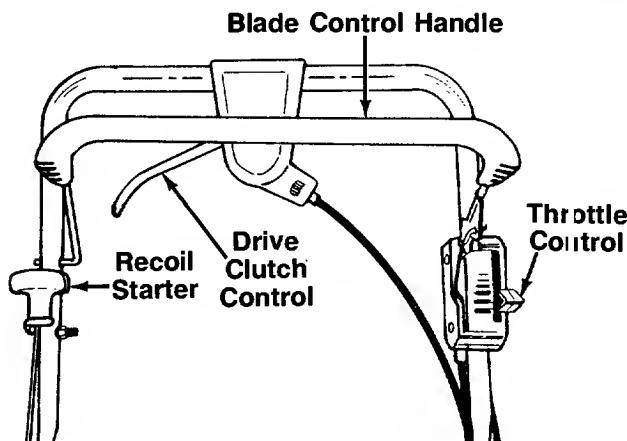


FIGURE 2.—Self-Propelled Model Shown

### BLADE CONTROL HANDLE

**WARNING:** This control mechanism is a safety device. Never attempt to bypass its operations.

The blade control handle is located on the upper handle of the mower. See figure 2. The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and blade.

**WARNING:** The blade will be rotating whenever the engine is running.

### THROTTLE CONTROL

The throttle control is located on the side of the upper handle. It is used to regulate the engine speed.

**WARNING:** The throttle control cannot be used to stop the engine.

### RECOIL STARTER

The recoil starter handle is attached to the handle. See figure 2. Stand behind the unit in the operating position to start the unit.

### DRIVE CLUTCH CONTROL

(Self-Propelled Models Only)

Squeezing the drive clutch control engages the drive mechanism to the rear wheels. Releasing the clutch control stops the rear wheels from driving. Release the drive clutch control to slow down when negotiating an obstacle, making a turn or stopping. See figure 2.

## OPERATION

TO REDUCE THE RISK OF INJURY, DO NOT OPERATE MOWER UNLESS REAR TRAILING SHIELD AND THIS GUARD OR ENTIRE GRASS CATCHER IS IN ITS PROPER PLACE.

**DANGER**  
KEEP HANDS and FEET AWAY



The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields. We recommend wide vision safety mask for over spectacles or standard safety glasses.

**NOTE:** For shipping purposes your mower is set with the wheels in a low cutting height position. For best results raise the cutting position until it is determined which height is best for your lawn. See cutting height adjustment section.

### GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your mower. Read instructions carefully.

**WARNING:** Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

FIGURE 3.

Keep hands and feet away from the chute area on cutting deck. See figure 3.

## BEFORE STARTING

1. Attach spark plug wire to spark plug. Make certain the metal loop on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug. See figure 4.

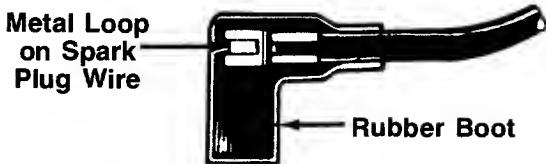


FIGURE 4.

2. Open fuel shut-off valve (if so equipped). Refer to separate engine manual.
3. Before each use, check for proper drive clutch operation by performing the following before starting the engine:

With the drive clutch control released, push mower forward. It should move freely. Pull mower backward. It should move freely.

If it does not and the rear wheels tend to lock up, the clutch may not be releasing completely. Do not start the engine until corrections have been made. Check the control cable for severe bend, kinks and binding, or grass build-up in the pulley groove. Correct and adjust as required.

## TO START ENGINE AND ENGAGE BLADE



**WARNING:** When starting self-propelled units for the first time, face the mower against a solid object such as a wall, fence, etc. Start the unit, and if it shows any signs of motion with the drive clutch control disengaged, shut the engine off immediately.

1. Move throttle control lever all the way forward.
2. Standing behind the unit, depress the blade control handle and hold it against the upper handle as shown. See figure 5.

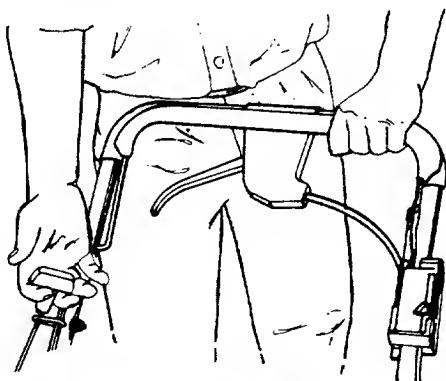


FIGURE 5.—Self-Propelled Model Shown

3. Grasp the recoil starter handle and pull back rapidly, extending rope fully. Return it slowly to the rope guide.

4. After engine starts, move throttle control to desired engine speed.

**NOTE:** If any problems are encountered, refer to the Trouble Shooting Guide on page 16.

## TO STOP ENGINE AND BLADE

1. Move throttle control lever to SLOW position.
2. Release the blade control handle to stop the engine and blade.



**WARNING:** The blade continues to rotate for a few seconds after the engine is shut off.

3. Disconnect the spark plug wire and ground it against the engine to prevent accidental starting while equipment is unattended.

## USING YOUR ROTARY MOWER



**WARNING:** Never operate your unit without either the rear chute door or entire grass catcher assembly in place.

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.

For the best results, do not cut wet grass because it tends to stick to the underside of the mower, preventing proper bagging of grass clippings, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut. Blade speed should be adjusted to the condition of the lawn.

For best results, cut off one-third or less of the total length of the grass. Lawn should be cut in the fall as long as there is growth.

This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of bagging the cut grass.



**WARNING:** If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

## ADJUSTMENTS



**WARNING:** Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

## CUTTING HEIGHT ADJUSTMENT

The height adjustment knob is located on the left side of the deck. Turn the knob clockwise to lower cutting height; turn it counterclockwise to raise the cutting height. See figure 6.

For rough or uneven lawns, raise the cutting height.

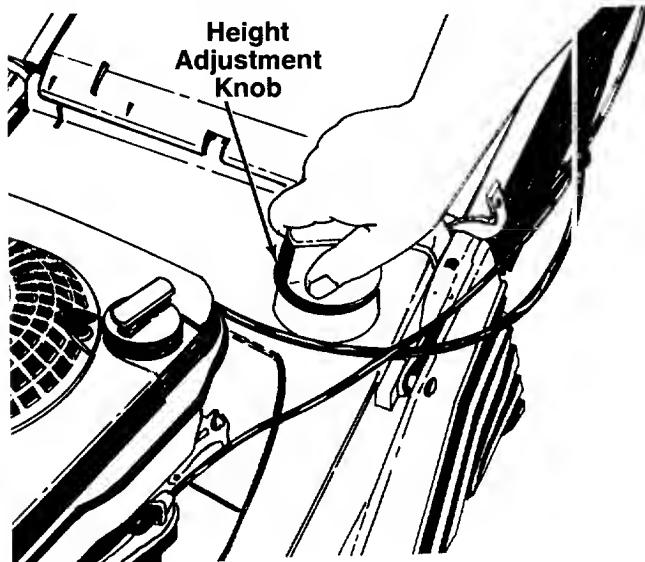


FIGURE 6.

## DRIVE CLUTCH CONTROL ADJUSTMENT

(Self-Propelled Models Only)

Use the adjustment wheel located in the clutch control housing to tighten the drive belt if mower does not self-propel with the drive clutch control engaged, or if drive belt is slipping (unit hesitates while engine maintains the same speed). See figure 7.

In addition, the adjustment wheel may also be used to determine the position in which the drive clutch control is engaged. If it is more comfortable to have the drive engaged with the lever further away from the handle, tighten the drive belt.

Make certain to retest the unit for neutral as instructed in the Operation Section. Move the adjustment wheel in the opposite direction to loosen the drive belt if necessary.

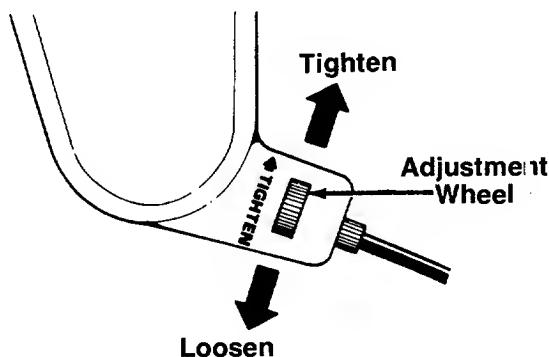


FIGURE 7.

## THROTTLE CONTROL ADJUSTMENT

If the throttle control requires adjustment or if it has been replaced, adjust the throttle control as follows.

1. Remove the screw shown in figure 8. Remove the cable clamp from the cable.
2. Push the throttle control lever on the handle all the way forward to CHOKE position. Make certain the throttle control lever remains in this position.
3. Push the control lever on the engine as far toward the rear of the engine as it will go. Secure the cable in this position with the cable clamp and screw.

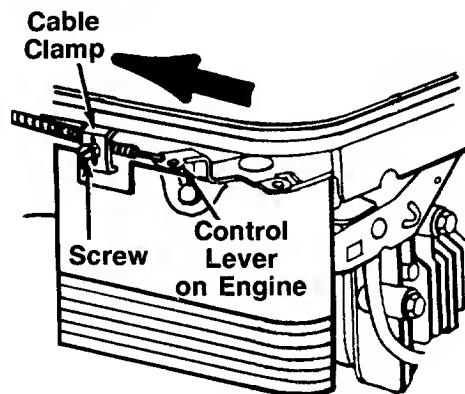


FIGURE 8.

## CARBURETOR ADJUSTMENTS

**WARNING:** If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load. To adjust carburetor, refer to the separate engine manual packed with your mower.

**NOTE:** A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor. Refer to the separate engine manual.

## LUBRICATION

**WARNING:** Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

**Blade Control**—Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. The blade control must operate freely in both directions.

**Chute Door**—The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Deflector must work freely.

**Wheels**—Mower is provided with ball bearing wheels. Lubricate at least once a season with light oil. Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

**Engine**—Follow engine manual for lubrication instructions.

**Throttle**—Periodically lubricate throttle control lever and throttle wire assembly with a few drops of light oil for ease of operation.

**Transmission**—The transmission is pre-lubricated and sealed at the factory. It does not require checking. If disassembled for any reason, fill with 2 ounces of Alvania grease, part number 737-0168.

The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

#### Blade Mounting Torque

Center Bolt and Blade Adapter Bolts:  
375 in. lb. min., 450 in. lb. max.

To insure safe operation of your unit, all nuts and bolts must be checked periodically for correct tightness.

## MAINTENANCE



**WARNING:** Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.

**NOTE:** When tipping the unit, empty the fuel tank and keep engine spark plug or muffler side up.

### TROUBLE SHOOTING

Refer to page 16 of this manual for trouble shooting information.

### CUTTING BLADE

When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade. Remove the bolt and bell washer which hold the blade and adapter to the engine crankshaft. Remove the blade and adapter from the crankshaft.

If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter.



**WARNING:** Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

It is recommended that the blade always be removed from the adapter for the best test of balance.

### DECK

The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

### ENGINE

Refer to the separate engine manual for engine maintenance instructions.

Maintain engine oil as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service air cleaner every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt and combustible debris from muffler area.

## BELT REMOVAL AND REPLACEMENT

1. Disconnect the spark plug wire and ground it against the engine.
2. Drain the fuel tank or place a piece of plastic beneath the cap to prevent gasoline leakage.
3. Tip the mower back on its handle. Block securely.
4. Remove the rear belt baffle by removing five self-tapping screws. See figure 9.

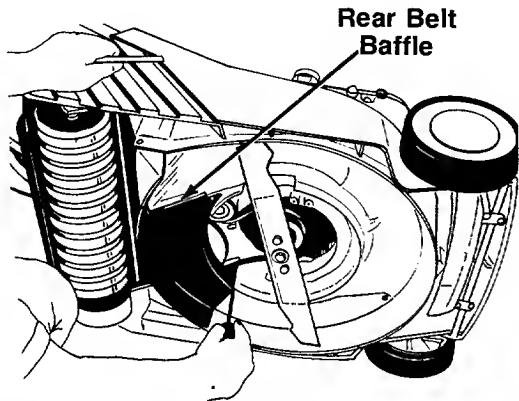


FIGURE 9.

5. Roll the belt off the transmission pulley. Remove the belt from between the idler pulley and belt guard. See figure 10.
6. Remove the belt from the pulley on the engine crankshaft, and pull it over the blade.

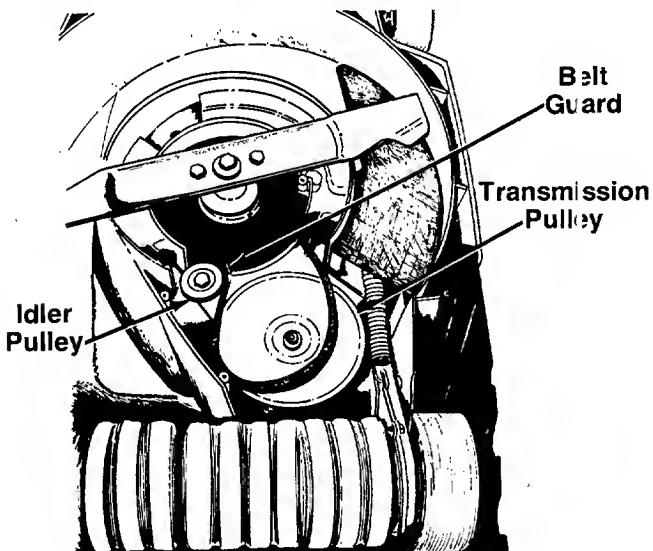


FIGURE 10.

7. Reassemble in reverse order with the new belt.

**NOTE:** When reassembling the rear belt baffle, make certain the belt keeper is outside of the belt, and the edge of the rear belt baffle is between the rear chute baffle and the rear panel. Make certain to tighten all nuts and bolts securely. If plastic was placed under the gas cap, be certain to remove it.

## OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Store mower in a dry, clean area.

**NOTE:** When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

## HANDLE STORAGE

The handle may be folded away completely for storage.

1. Disconnect the spark plug wire and move away from the spark plug.
2. Remove the starter rope from both rope guides. Unhook the brake cable from the blade control handle. Remove the grass bag.
3. Loosen the hand knobs. Fold the upper handle down.
4. Pull outward on the handle locks on each side of the lower handle, and lift the sides of the lower handle past the locks as shown in figure 11. Fold the lower handle forward.

To return the mower to operating position, follow "Set-Up Instructions" on page 3.

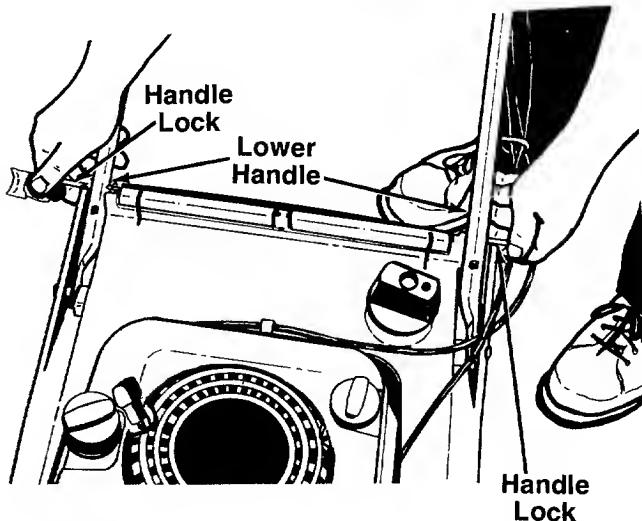
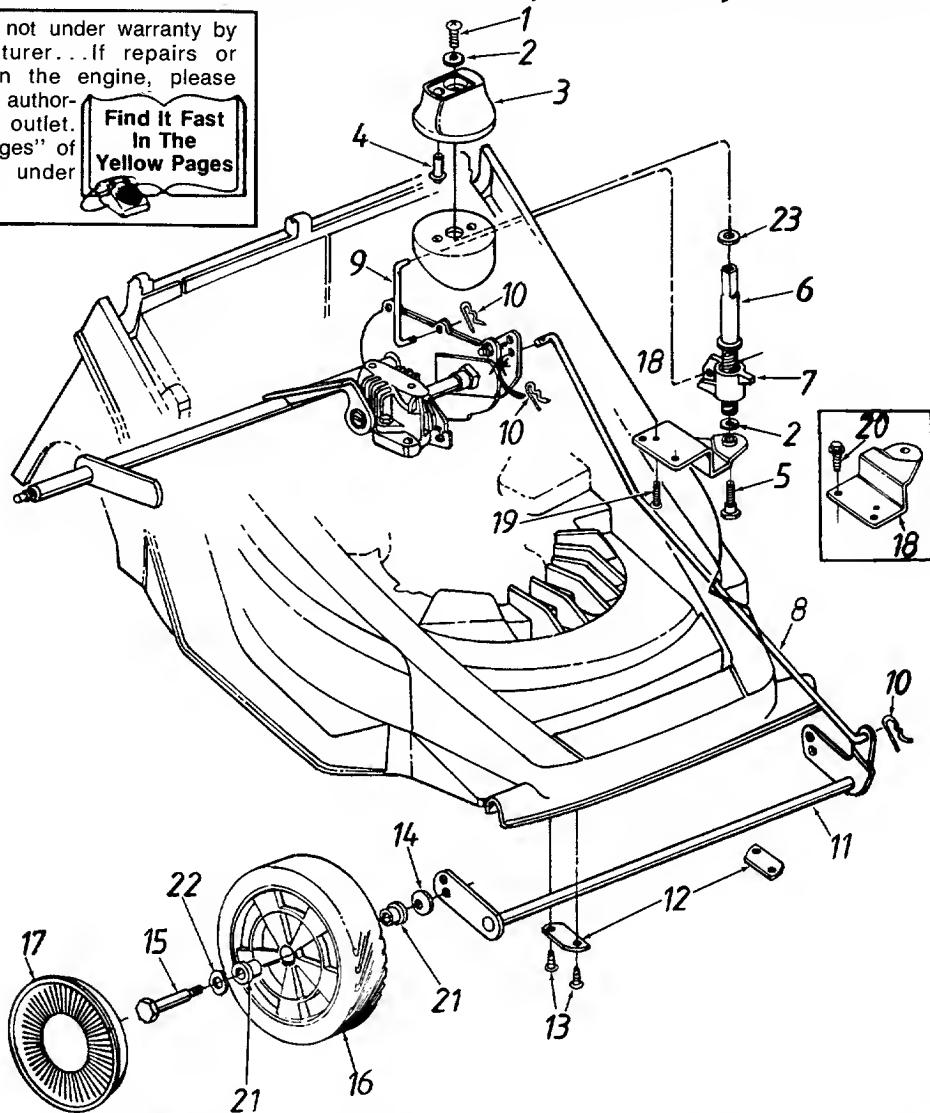


FIGURE 11.

# Models 604R, 614R, 626R, 628R, 636R and 638R

NOTE: The engine is not under warranty by the mower manufacturer...If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

**Find It Fast  
In The  
Yellow Pages**



PARTS LIST FOR MODELS 604R, 614R, 626R, 628R, 636R AND 638R LAWN MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-0255		Truss Mach. Scr. $\frac{1}{4}$ -20 x .75" Lg.	11	17521		Front Axle Ass'y.
2	736-0329		L-Wash. $\frac{1}{4}$ " I.D.*	12	17800		Axle Mounting Plate
3	720-0236	N	Plastic Knob	13	710-0969		Truss Mach. Hi-Riser Tap Scr. #12 x 1" Lg.
4	732-0675	N	Ball Plunger	14	736-0105		Bell-Wash. .38" I.D. x .88"
5	738-0137	N	Shld. Bolt .342" Dia. x .268" Lg.	15	738-0102		Shld. Bolt .498" Dia. x 1.45"
6	738-0811	N	Height Adjuster Spindle	16	734-1670		Front Wheel Ass'y. Comp.
7	731-1128	N	Spindle Guide	17	731-0981A		Hub Cap
8	747-0590	N	Height Adjustment Rod†	18	17802		Height Adj. Spindle Brkt.
747-0589	N		Height Adjustment Rod††	19	710-0969		Truss Mach. Hi-Riser Tap Scr. #12 x 1" Lg. (604R, 614R)
9	747-0803	N	Height Adjustment Link†	20	710-0603		Hex B-Tap 5/16-18 x .5" Lg. (626R, 628R, 636R, 638R)
10	714-0104	N	Height Adjustment Link††	21	741-0180		Ball Bearing
	714-0507		Int. Cotter Pin 5/16" Dia. (604R, 614R)	22	736-0232		Wave Wash. .53" I.D.
			Cotter Pin 3/32" Dia. (626R, 628R, 636R, 638R)	23	736-0326		Fl-Wash. .51" I.D. x 1" O.D.

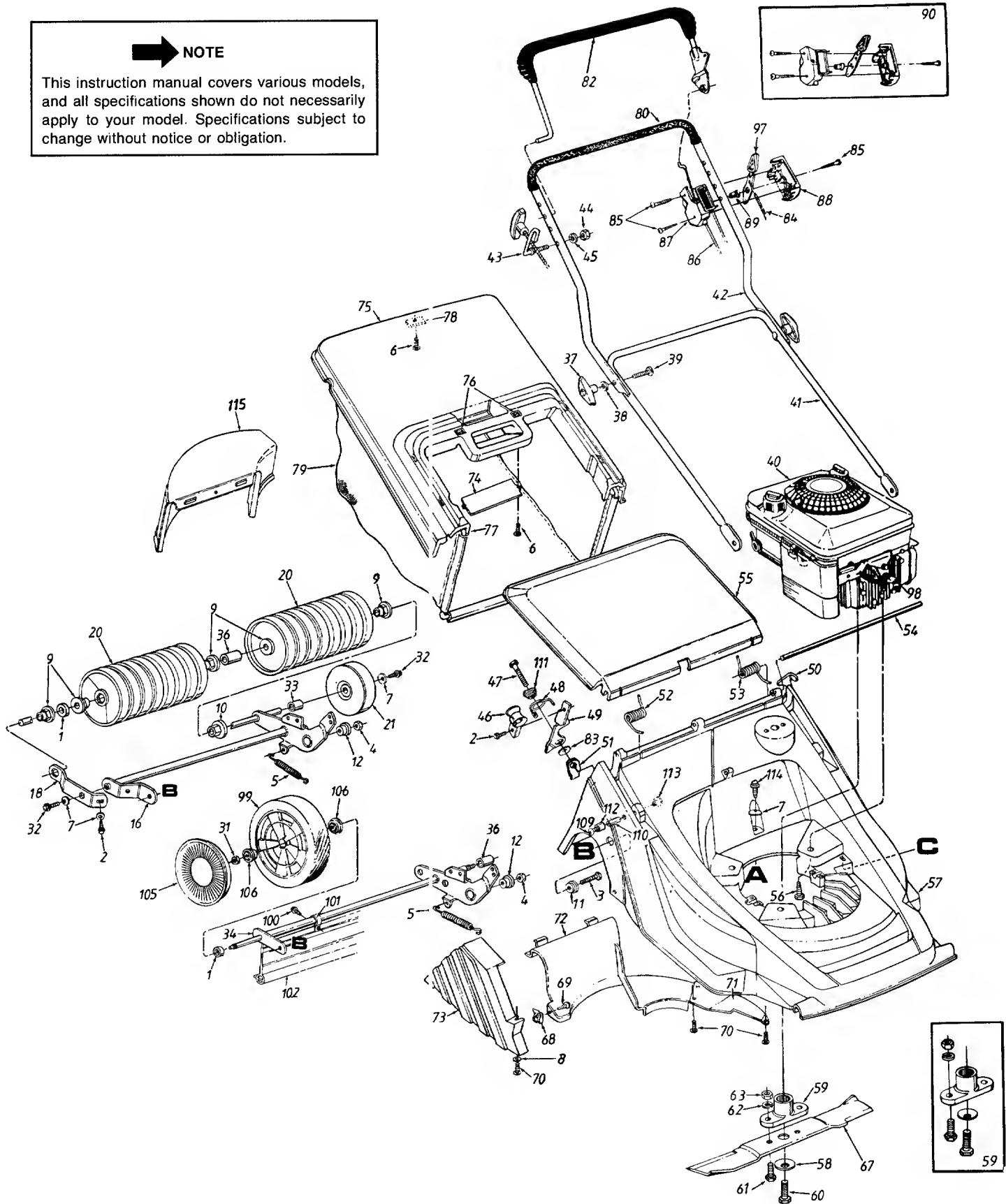
†Models 614R, 636R and 638R Only.

††Models 604R, 626R and 628R Only.

## **Models 604R and 614R**



This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.



# Models 604R and 614R

## PARTS LIST FOR MODELS 604R AND 614R LAWN MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	750-0289		Spacer .508" I.D. x .875" O.D.	59	753-0485		Blade Adapter Kit
2	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.	60	710-0757		Hex Bolt 7/16-20 x 1.5" Lg.
3	710-1006		Hex Wash. Hd. TT-Tap Scr. 3/8-16 x .75" Lg.	61	710-1055		Hex Bolt 3/8-24 x 1" Lg.
4	712-0296		Hex L-Nut 3/8-24 Thd.	62	736-0169		L-Wash. 3/8" I.D.*
5	732-0478		Extension Spring 6.12" Lg.	63	712-0241		Hex Nut 3/8-24 Thd.
6	710-1220	N	Truss Mach. Hi-Riser Tap Scr. .12 x .75" Lg.	67	742-0618	N	18" Blade
7	736-0270		Bell-Wash. .265" I.D. x .75" O.D.	68	712-0400	N	U-Nut #10-16 Thd.
8	736-0147		Ext. L-Wash. #10 I.D.	69	710-0351		Truss Mach. B-Tap Scr. #10 x .5" Lg.
9	741-0324		Hex Flange Brg. .506" I.D.†	70	710-0969		Truss Mach. Hi-Riser Tap Scr. .12 x 1" Lg.
10	741-0522		Hex Flange Brg. .506" I.D.†	71	17740	N	Spiral Baffle
11	750-0812	N	Pivot Spacer—R.H.	72	731-1109	N	Chute Baffle
12	750-0813	N	Pivot Spacer—L.H.	73	731-1110	N	Rear Fender—R.H.†
16	17804	N	Roller Axle Ass'y.†	74	731-1111	N	Rear Fender—L.H. (Not Shown)†
18	17539	N	Roller Axle Brkt.—R.H.†	75	731-1113	N	Hardtop Cover Plate
20	731-1117	N	Molded Roller†	76	720-0272	N	Hardtop Cover
21	731-1118	N	Small Roller†	77	747-0538	N	Magnetic Catch
31	712-0346		Hex L-Nut 1/2-20 Thd.††	78	17801	N	Catcher Frame
32	710-0642		Hex TT-Tap Scr. 1/4-20 x .75" Lg.†	79	764-0273	N	Bag Frame Mtg. Plate
33	748-0190	N	Spacer .508" I.D. x .688" O.D.†	80	720-0225		Grass Bag
34	17803		Rear Axle Ass'y.††	82	731-0609		Foam Grip (Optional)
36	750-0151		Spacer .55" I.D. x .755" O.D.	83	736-0242		Control Handle
37	720-0241	N	Knob Ass'y.	84	746-0841	N	Bell-Wash. 5/16" I.D. x .88"
38	736-0451	N	Saddle Washer .32" I.D.	85	710-0796		Throttle Control Wire
39	710-1152		Curved Carr. Bolt 5/16-18 x 2" Lg.	86	746-0480A		Truss Mach. Scr. #12 x 1.5" Lg.
40	—		Engine	87	731-0816		Control Cable 46" Lg.
41	749-0823	N	Lower Handle Ass'y.	88	731-0817		Clutch Panel Half
42	749-0816	N	Upper Handle	89	731-0524		Control Panel Half
43	710-0842B		Rope Guide Bolt	90	753-0430		Control Disc Pin
44	712-0267		Hex Nut 5/16-18 Thd.*	97	731-0528B	N	Kit—Control Housing Comp.
45	736-0119		L-Wash. 5/16" I.D.*	98	735-0639		Throttle Control Lever
46	719-0279		Rope Guide	99	734-1513B		Spark Plug Boot
47	710-0874		Hex Bolt 5/16-18 x 1.25" Lg.*	100	710-0351		Wheel Ass'y. Comp.††
48	732-0646	N	Handle Latch Spring—R.H.	101	726-0287	N	Truss Mach. B-Tap Scr. #10 x .5" Lg.††
	732-0647	N	Handle Latch Spring—L.H. (Not Shown)	102	731-0898	N	Clamp††
49	17748	N	Handle Lock—R.H.	105	731-0981A	N	Rear Flap††
50	17749	N	Handle Lock—L.H.	106	741-0180	N	Hub Cap††
51	726-0211		U-Nut 5/16-18 Thd.	109	710-1131	N	Ball Brg. 1/2" I.D.††
52	732-0654	N	Torsion Spring—R.H.	110	750-0816	N	Truss Hd. Scr. 1/4-20 x 2" Lg.
53	732-0653	N	Torsion Spring—L.H.	750-0817		Spacer .26" I.D. x 1.25" Lg.— R.H.	
54	747-0773	N	Hinge Pin 14.5" Lg.	111	738-0839	N	Spacer .26" I.D. x 1.52" Lg.— L.H. (Not Shown)
55	731-1106	N	Chute Door	112	750-0503	N	Latch Plate Bushing
56	710-1007		Hex L-Wash. TT-Tap Scr. 3/8-16 x 1.5" Lg.	113	712-0399	N	Spacer .383" I.D. x .562" Lg.
57	731-1101	N	Deck Ass'y.	114	710-0947	N	Propel Nut 1/4-20 Thd.
58	736-0453		Bell-Wash. .47" I.D. x 1.14"	115	731-1112	N	Hex Wash. Hd. B-Tap Scr. .14 x .75" Lg.
							Rear Discharge Chute Deflector

†Model 614R Only.

††Model 604R Only.

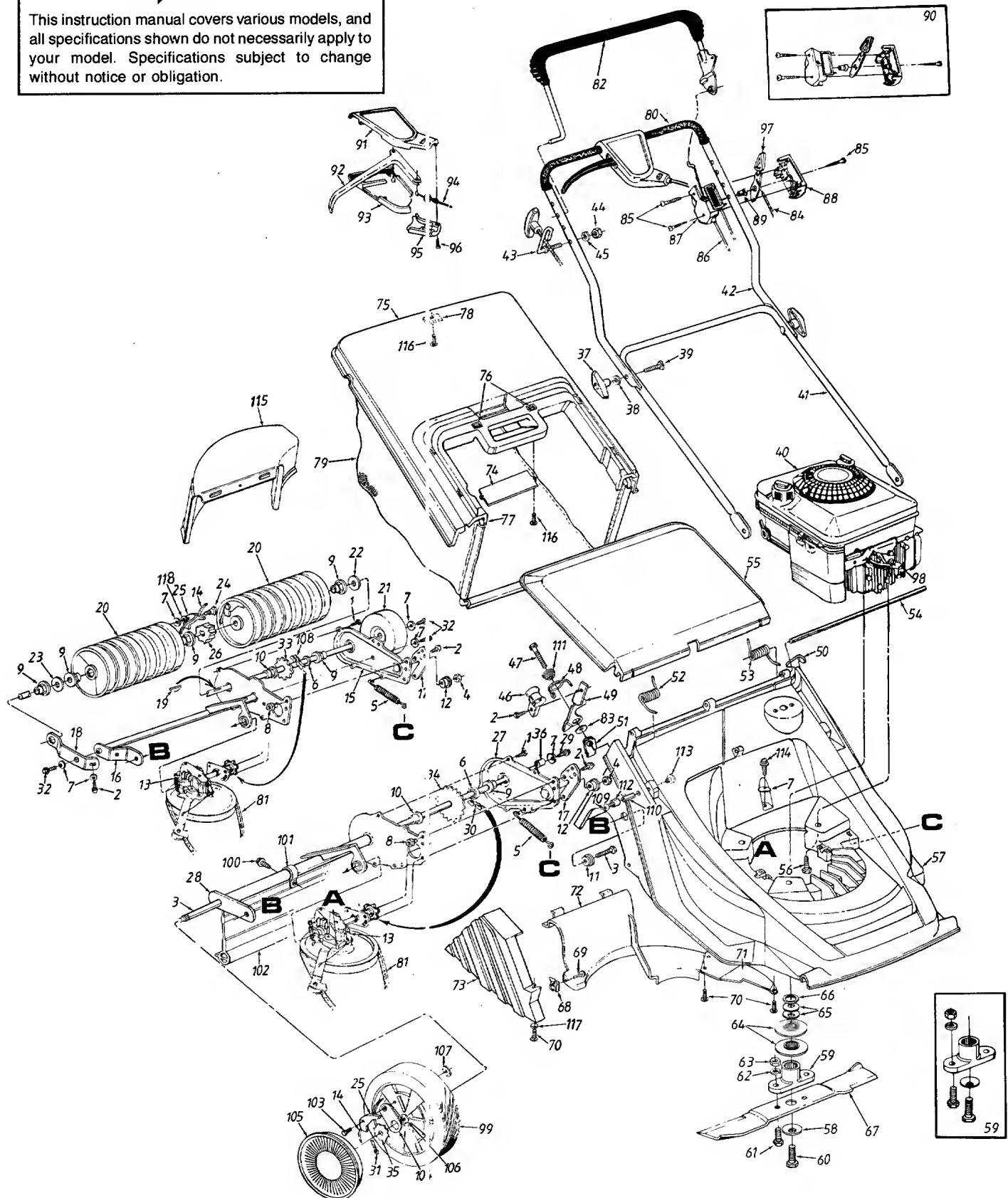
\*For faster service obtain standard nuts, bolts and washers locally.

If these items cannot be obtained locally, order by part number and size as shown on parts list.

# Models 626R, 628R, 636R and 638R



**NOTE**  
This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.



# Models 626R, 628R, 636R and 638R

## PARTS LIST FOR MODELS 626R, 628R, 636R AND 638R LAWN MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-0352		Hex B-Tap Scr. 1/4-20 x .38" Lg.	49	17748	N	Handle Lock—R.H.
2	710-0599		Hex Wash. Hd. TT-Tap Scr. 1/4-20 x .5" Lg.	50	17749	N	Handle Lock—L.H.
3	710-1006		Hex Wash. Hd. TT-Tap Scr. 3/8-16 x .75" Lg.	51	726-0211	N	U-Nut 5/16-18 Thd.
4	712-0296		Hex L-Nut 3/8-24 Thd.	52	732-0654	N	Torsion Spring—R.H.
5	732-0478		Extension Spring 6.12" Lg.	53	732-0653	N	Torsion Spring—L.H.
6	736-0160		Fl-Wash. .531" I.D. x .93" O.D.	54	747-0773	N	Hinge Pin 14.5" Lg.
7	736-0329		L-Wash. 1/4" I.D.*	55	731-1106	N	Chute Door
8	738-0561		Shoulder Nut 1/4-20 Thd.	56	710-1007		Hex L-Wash. TT-Tap Scr. 3/8-16 x 1.5" Lg.
9	741-0324		Hex Flange Brg. .506" I.D.	57	731-1101	N	Deck Ass'y.
10	741-0522		Hex Flange Brg. .506" I.D.	58	736-0453		Bell-Wash. .47" I.D. x 1.14" O.D.
11	750-0812	N	Pivot Spacer—R.H.	59	753-0485		Blade Adapter Kit
12	750-0813	N	Pivot Spacer—L.H.	60	710-0757		Hex Bolt 7/16-20 x 1.5" Lg.
13	812-00003	N	Transmission Complete	61	710-1055		Hex Bolt 3/8-24 x 1" Lg.
14	10622B		Plastic Spring	62	736-0169		L-Wash. 3/8" I.D.*
15	17530	N	Roller Chain Cover Ass'y.†	63	712-0241		Hex Nut 3/8-24 Thd.
16	17532	N	Roller Axle Ass'y.†	64	756-0502		Splined Pulley Half (2 Req'd.)
17	17538	N	Rear Height Adjuster Brkt.	65	736-0450		Bell-Wash. 1.01" I.D.
18	17539	N	Roller Axle Brkt.—R.H.†	66	748-0332	N	Crankshaft Spacer
19	714-0131		#5 Hi-Pro Key 1/8" x 5/8" Dia.†	67	742-0618	N	18" Blade
20	731-1117	N	Molded ROLLER†	68	712-0400	N	U-Nut #10-16 Thd.
21	731-1118	N	Small ROLLER†	69	710-0351	N	Truss Mach. B-Tap Scr. #10 x .5" Lg.
22	736-0272		Fl-Wash. .51" I.D. x 1" O.D. x .06"†	70	710-0969		Truss Mach. Hi-Riser Tap Scr. #12 x 1" Lg.
23	736-0326		Fl-Wash. .51" I.D. x 1" O.D. x .12"†	71	17740	N	Spiral Baffle
24	738-0137		Shld. Bolt .342" Dia. x .268"†	72	731-1109	N	Chute Baffle
25	748-0188B		Pawl	73	731-1110	N	Rear Fender—R.H.†
26	748-0330	N	Wheel Ratchet†	74	731-1111	N	Rear Fender—L.H. (Not Shown)
27	17053A		Chain Cover Ass'y.††	75	731-1113	N	Hardtop Cover Plate
28	17517	N	Axle Ass'y.††	76	731-1108	N	Hardtop Cover
29	710-0751		Hex Bolt 1/4-20 x .62" Lg. (Gr. 5)††	77	720-0272	N	Magnetic Catch
30	713-0353		#48 Chain .5" Pitch x 30 Links††	78	747-0538	N	Catcher Frame
31	714-0115		Cotter Pin††	79	17801	N	Bag Frame Mtg. Plate
32	710-0642		Hex TT-Tap Scr. 1/4-20 x .75"†	80	764-0273	N	Grass Bag
33	738-0809	N	Roller Rear Axle Ass'y.†	81	754-0327		Foam Grip (Optional)
34	738-0797	N	Rear Axle Ass'y.††	82	731-0609		"V"-Belt
35	748-0318		Wheel Ratchet††	83	736-0242		Control Handle
36	750-0664		Spacer .5" I.D. x .88" O.D.††	84	746-0841	N	Bell-Wash. 5/16" I.D. x .88"
37	720-0241	N	Knob Ass'y.	85	710-0796		Throttle Control Wire
38	736-0451	N	Saddle Washer .32" I.D.	86	746-0480A	N	Truss Mach. Scr. #12 x 1.5" Lg.
39	710-1152		Curved Carr. Bolt 5/16-18 x 2" Lg.	87	731-0816A	N	Control Cable 46" Lg.
40	—		Engine	88	731-0817A	N	Clutch Panel Half
41	749-0823	N	Lower Handle	89	731-0524		Control Panel Half
42	749-00160	N	Upper Handle	90	753-0430		Control Disc Pin
43	710-0842B		Rope Guide Bolt	91	731-1057		Kit—Control Housing Comp.
44	712-0267		Hex Nut 5/16-18 Thd.*	92	731-0620		Upper—S.P. Control Cover
45	736-0119		L-Wash. 5/16" I.D.*	93	731-1058		Control Lever
46	719-0279		Rope Guide	94	746-0713	N	Lower—S.P. Control Cover
47	710-0874		Hex Bolt 5/16-18 x 1.25" Lg.*	95	731-1059		S.P. Adj. Cable x 52.5" Lg.
48	732-0646	N	Handle Latch Spring—R.H.	96	710-0841		S.P. Control Cover
	732-0647	N	Handle Latch Spring—L.H. (Not Shown)	97	731-0528B	N	Fl—"C"-Sunk Hd. Tap Scr. #10 x .75" Lg.
				98	735-0639		Throttle Control Lever
				99	734-1510B		Spark Plug Boot
							Wheel Ass'y. Comp.††

# Models 626R, 628R, 636R and 638R

PARTS LIST FOR MODELS 626R, 628R, 636R AND 638R LAWN MOWERS (CONTINUED)

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
100	710-0351	N	Truss Mach. B-Tap Scr. #10 x .5" Lg.††	110	750-0816	N	Spacer .26" I.D. x 1.25" Lg.
101	726-0287	N	Clamp††	111	738-0839	N	Spacer .26" I.D. x 1.52" Lg.
102	731-0898	N	Rear Flap††	112	750-0503	N	Latch Plate Bushing
103	738-0137		Shld. Bolt .342" Dia. x .268"††	113	712-0399	N	Spacer .383" I.D. x .562" Lg.
104	16855		Pawl Plate††	114	710-0947	N	Propel Nut 1/4-20 Thd.
105	731-0981A		Hub Capt††	115	731-1112	N	Hex B-Tap Scr. 1/4 x .75"
106	741-0486B		Sleeve Brdg. 1/2" I.D.††	116	710-1220	N	Rear Discharge Chute Deflector
107	712-0189		Flat Weld Nut 1/4-20 Thd.††	117	736-0147	N	Truss Mach. Hi-Riser Top Scr. #12 x .75" Lg.
108	713-0256		#48 Chain .5" Pitch x 32 Linkst††	118	736-3020	N	Ext. L-Wash. #10 I.D.
109	710-1131	N	Truss Hd. Scr. 1/4-20 x 2' Lg.				Fl-Wash. .266" I.D.

†Models 636R and 638R Only.

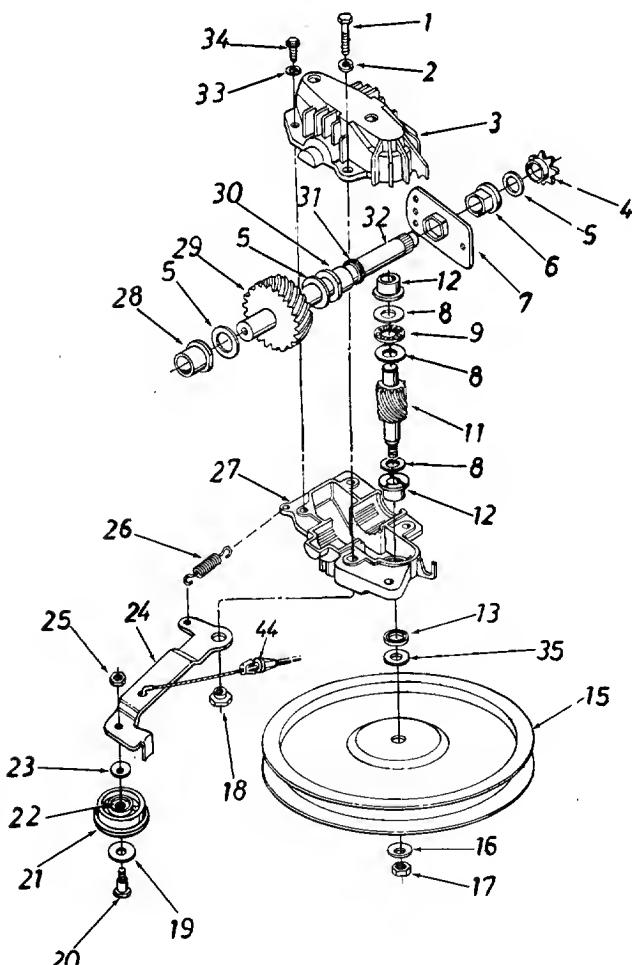
††Models 626R and 628R Only.

\*For faster service obtain standard nuts, bolts and washers locally.

If these items cannot be obtained locally, order by part number and size as shown on parts list.

# Models 626R, 628R, 636R and 638R

PARTS LIST FOR MODELS 626R, 628R,  
636R AND 638R ROTARY MOWERS



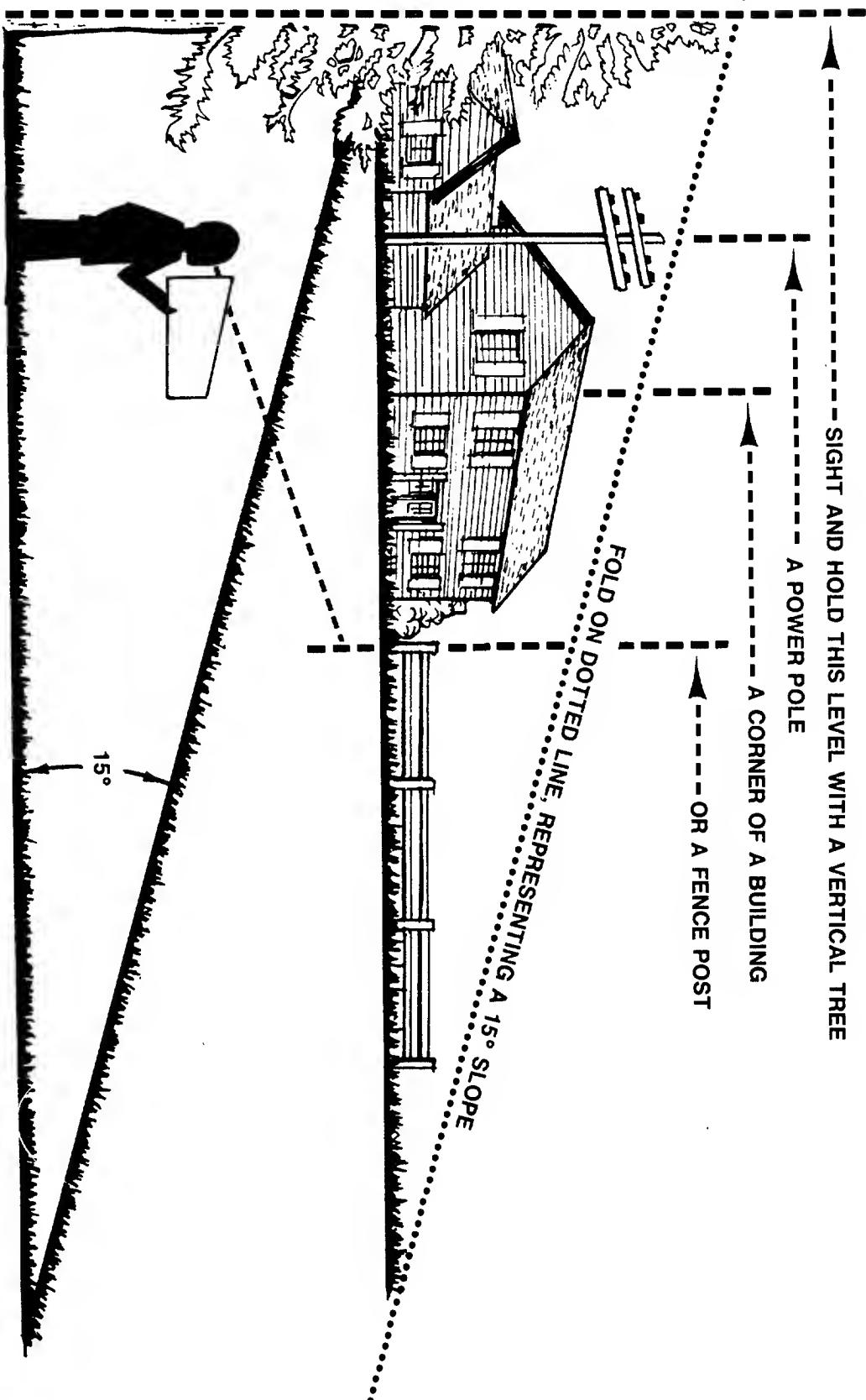
REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-1062		Hex Bolt 1/4-20 x 1.25" Lg. w/Patch
2	726-0329		L-Wash. 1/4" I.D.*
3	717-0418A		Upper Hsg. Half
4	713-0400		#48 Sprocket 7 Tooth x 1/2 Pitch
5	736-0336		Fl-Wash. 5/8" I.D. x .030
6	741-0413		Hex Flange Brdg. .631" I.D.
7	16500A		Hex Bearing Cup
8	736-0314		Thrust Wash. .382" I.D. x .70" O.D.
9	741-0479		Thrust Bearing .375" I.D. x .812" O.D.
11	717-1216		11 Tooth Helical Gear
12	748-0208A		Flange Bearing
13	721-0212		Oil Seal
15	756-0330A		Fl-Pulley 5.06" I.D.†
16	736-0270		Bell-Wash. .265" I.D. x .75"†
17	712-0351		Hex Nut 1/4-28 L.H. Thd.†
18	738-0440		Shld. Spacer .375" Dia. x .170†
19	736-0344		Fl-Wash. .390" I.D. x 1.0"†
20	738-0826		Shld. Bolt .375" Dia. x .40"†
21	756-0558	N	Fl-Idler Plastic 1.50" Dia.†
22	741-0556		Needle Brdg. .375" x .31"†
23	736-0270		Bell-Wash. .265" I.D. x .75"†
24	17052A		Idler Brk't. Ass'y.†
25	712-0138		Hex Patch L-Nut 1/4-28 Thd.†
26	732-0357		Extension Spring 1.12" Lg.†
27	717-0419A		Lower Hsg. Half
28	741-0415		Flange Bearing .56 Dia.
29	717-0422A	N	33 Tooth Helical Gear
30	741-0414		Flange Bearing .629 Dia.
31	721-0213		Oil Seal .625 Dia.
32	717-1028	N	Gear Sprocket Shaft
33	736-0722		L-Wash. #10 I.D.
34	710-0436		Hex B-Tap Scr. #10 x .62"
35	736-0410		Hex Washer .26" x .88"†
44	746-0713	N	S.P. Cable—52.5" Lg.†
—	812-00003	N	Transmission Comp.

†Not Part of Transmission Complete

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

# SLOPE GAUGE

(Keep in a safe place for future reference.)



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately  $2\frac{1}{2}$  feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.



WARNING

# TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	1. Blade control handle disengaged. 2. Spark plug wire disconnected. 3. Throttle control lever not in CHOKE or START position. 4. Fuel shut-off valve closed (if so equipped). 5. Fuel tank empty, or stale fuel. 6. Blocked fuel line. 7. Faulty spark plug. 8. Engine flooded.	1. Engage blade control handle. 2. Connect wire to spark plug. 3. Move throttle lever to CHOKE or START position. 4. Open fuel shut-off valve.  5. Fill tank with clean, fresh gasoline. 6. Clean fuel line. 7. Clean, adjust gap or replace. 8. Remove spark plug, dry the plug, and crank engine with plug removed and throttle in off position. Replace spark plug, connect wire and resume starting procedures.
Engine runs erratic	1. Unit running in CHOKE or START position. 2. Spark plug wire loose. 3. Blocked fuel line or stale fuel.  4. Vent in gas cap plugged. 5. Water or dirt in fuel system. 6. Dirty air cleaner. 7. Carburetor out of adjustment.	1. Move throttle lever to FAST position. 2. Connect and tighten spark plug wire. 3. Clean fuel line; fill tank with clean, fresh gasoline. 4. Clear vent. 5. Drain fuel tank. Refill with fresh fuel. 6. Clean air cleaner.† 7. Adjust carburetor.†
Engine overheats	1. Engine oil level low. 2. Air flow restricted. 3. Carburetor not adjusted properly.	1. Fill crankcase with proper oil. 2. Remove blower housing and clean.† 3. Adjust carburetor.†
Occasional skip (hesitates) at high speed	1. Spark plug gap too close. 2. Carburetor idle mixture adjustment improperly set.	1. Adjust gap to .030" 2. Adjust carburetor.†
Idles poorly	1. Spark plug fouled, faulty or gap too wide. 2. Carburetor improperly adjusted. 3. Dirty air cleaner.	1. Reset gap to .030" or replace spark plug. 2. Adjust carburetor.† 3. Clean air cleaner.†
Excessive vibration	1. Cutting blade loose or unbalanced. 2. Bent cutting blade.	1. Tighten blade and adapter. Balance blade. 2. Replace blade.
Mower will not discharge grass	1. Engine speed too low. 2. Wet grass.  3. Excessively high grass.	1. Set throttle between 3/4 and full throttle. 2. Do not mow when grass is wet; wait until later to cut. 3. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath (1/2 width).
Uneven cut	Dull blade.	Sharpen or replace blade.

†Refer to separate engine manual packed with your unit.

Note: For repairs beyond the minor adjustments listed above, contact your local authorized service dealer.